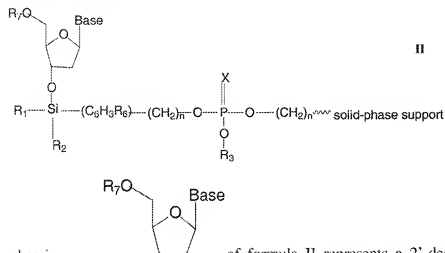


ABSTRACT

Methods of synthesizing nucleic acid oligomers on a solid-phase support having a 3'-end nucleoside unit introduced thereon-as represented by formula II:



wherein of formula II represents a 2'-deoxyribonucleoside or its N-protected derivative, the substituent $-\text{O}-(\text{R}_1)\text{Si}(\text{R}_2)-(\text{C}_6\text{H}_5\text{R}_6)-(\text{CH}_2)_n-\text{O}-\text{P}(\text{OR}_3)\text{XO}-(\text{CH}_2)_n$ is attached at the 3' position of the sugar moiety of the nucleoside substituent; each of R_1 and R_2 is an alkyl or optionally substituted aryl group, wherein the optionally substituted aryl group has a substituent selected from the group consisting of C_{1-4} alkyl, nitro, cyano, halo and methoxyl; R_3 is a protecting group; X is S or O; R_7 is H or 4,4'-dimethoxytrityl; each n is an integer of from 1 to 5; and the solid-phase support has hydroxyl groups on its surface.